



ATTORNEY DOCKET NO.: 07083.0008U5  
PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

1623  
P#5

In re application of )  
Hutchins *et al.* )  
Serial No.: 10/038,694 )  
Confirmation No.: 1998 )  
Filed: December 31, 2001 )  
For: SUPERFICIAL ZONE PROTEIN AND )  
METHODS OF MAKING AND USING SAME )

Group Art Unit: 1623

Examiner: Unassigned

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INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents  
Washington, D.C. 20231

NEEDLE & ROSENBERG, P.C.  
The Candler Building  
127 Peachtree Street, N.E.  
Atlanta, Georgia 30303-1811

July 2, 2002

Sir:

Pursuant to the requirements of 37 C.F.R. § 1.56, submitted herewith on the accompanying form PTO 1449 is a listing of documents known to the applicants and/or their attorneys. Copies of these documents are enclosed.

Applicants herein further provide a reference to co-pending application(s) pursuant to the requirements of 37 C.F.R. § 1.56 and 37 C.F.R. § 1.98(a)(1):

<u>Application No.</u>	<u>Date Filed</u>	<u>Inventors</u>	<u>Attorney Docket No.</u>
09/780,718	02/09/01	Hutchins et al.	07083.0008U4

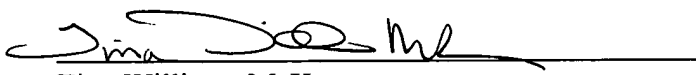
A copy of the above co-pending application is enclosed pursuant to the requirements of 37 C.F.R. § 1.98(a)(2)(iii).

Consideration of the cited documents and making the same of record in the prosecution of the above-noted application are respectfully requested.

No fee is believed due; however, the Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 14-0629.

Respectfully submitted,

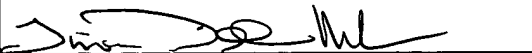
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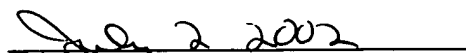
  
Tina Williams McKeon  
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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, Washington, D.C. 20231, on the date shown below.

  
Tina Williams McKeon

  
Date



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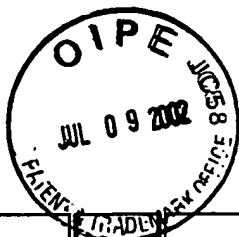
ATTORNEY DOCKET NO. 07083.000805

SERIAL NO. 10/038.694

Page 1 of 2

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Form PTO-100 U.S. DEPARTMENT OF COMMERCE (Rev. 7-80) PATENT AND TRADEMARK OFFICE				ATTORNEY DOCKET NO.: 07083.000805		SERIAL NO. 10/038.694 CONFIRMATION NO. 1998	
LIST OF PRIOR ART CITED BY APPLICANT (Use several sheets if necessary)				APPLICANT: Hutchins et al.			
				FILING DATE: December 31, 2001		GROUP: 1623	
U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
FOREIGN PATENT DOCUMENTS							
	A1	WO 00/64930 ✓	11/02/00	Jay (PCT)			
	A2	WO 98/08949 ✓	03/05/98	Larsen et al. (PCT)			
OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)							
	A3	Aigner et al. Suppression of cartilage matrix gene expression in upper zone chondrocytes of osteoarthritic cartilage. <i>Arthritis Rheum</i> 40:562-569 (1997)					
	A4	Aydelotte et al. Differences between sub-populations of cultured bovine articular chondrocytes. I. Morphology and cartilage matrix production. <i>Connect Tissue Res.</i> 18:205-222 (1988)					
	A5	Aydelotte et al. Differences between sub-populations of cultured bovine articular chondrocytes. II. Proteoglycan metabolism. <i>Connect Tissue Res.</i> 18:223-234 (1988)					
	A6	Condreay et al. Transient and stable gene expression in mammalian cells transduced with a recombinant baculovirus vector. <i>PNAS</i> 96:127-132 (1999)					
	A7	de Belder. Preparation and properties of fluorescein-labelled hyaluronate. <i>Carbohydr. Res.</i> 44(2):251-257 (1975)					
	A8	Flannery et al. Articular cartilage superficial zone protein (SZP) is homologous to megakaryocyte stimulating factor precursor and is a multifunctional proteoglycan with potential growth-promoting, cytoprotective, and lubricating properties in cartilage metabolism. <i>Biochem. Biophys. Res. Commun.</i> 254(3):535-541 (1999)					
	A9	Freemont et al. Gene expression of matrix metalloproteinases 1,3, and 9 by chondrocytes in osteoarthritic human knee articular cartilage is zone and grade specific. <i>Ann Rheum Dis</i> 56:542-549 (1997)					
	A10	Guilak et al. Mechanical and biochemical changes in the superficial zone of articular cartilage in canine experimental osteoarthritis. <i>J Orthop Res</i> 12:474-484 (1994)					
	A11	Hauselmann et al. The superficial layer of human articular cartilage is more susceptible to interleukin-1-induced damage than the deeper layers. <i>Arthritis Rheum</i> 39:478-488 (1996)					
	A12	Hollander et al. Damage to type II collagen in aging and osteoarthritis starts at the articular surface, originates around chondrocytes, and extends into the cartilage with progressive degeneration. <i>J Clin Invest</i> 96:2859-2869 (1995)					
	A13	Jay et al. Lubricin is a product of megakaryocyte stimulating factor gene expression by human synovial fibroblasts. <i>J Rheumatol</i> 27:594-600 (2000)					
	A14	Kilpatrick et al. Rapid development of affinity matured monoclonal antibodies using RIMMS. <i>Hybridoma</i> 16:381-389 (1997)					
	A15	Kilpatrick et al. Gene gun delivered DNA-based immunizations mediate rapid production of murine monoclonal antibodies to the Flt-3 receptor. <i>Hybridoma</i> 17:569-576 (1998)					
	A16	Krejcarek et al. Covalent attachment of chelating groups to macromolecules. <i>Biochem Biophys Res Commun</i> 77:581-585 (1977)					



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Page 2 of 2

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A17	Lark et al. Aggrecan degradation in human cartilage. Evidence for both matrix metalloproteinase and aggrecanase activity in normal, osteoarthritic, and rheumatoid joints. <i>J Clin Invest</i> 100:93-106 (1997)
A18	Lindley et al. Production of monoclonal antibodies using recombinant baculovirus displaying gp64-fusion proteins. <i>J. Immun. Methods</i> 234:123-135 (2000)
A19	Lorenzo et al. A novel cartilage protein (CILP) present in the mid-zone of human articular cartilage increases with age. <i>J Biol Chem</i> 273:23463-23468 (1998)
A20	Luckow et al. Efficient generation of infectious recombinant baculoviruses by site-specific transposon-mediated insertion of foreign genes into a baculovirus genome propagated in <i>Escherichia coli</i> . <i>J Virol</i> 67:4566-4579 (1993)
A21	Marcelino et al. CACP, encoding a secreted proteoglycan, is mutated in camptodactyl-arthropathy-coxa vara-pericarditis syndrome. <i>Nature Genetics</i> 23:319-322 (1999)
A22	Merberg et al. A Comparison of Vitronectin and Megakaryocyte Stimulating Factor. <i>Biology of Vitronectins and their Receptors</i> pp. 45-52 (1993)
A23	Ohta et al. Expression of matrix metalloproteinase 7 (matrilysin) in human osteoarthritic cartilage. <i>Lab Invest</i> 78:79-87 (1998)
A24	Panula et al. Articular cartilage superficial zone collagen birefringence reduced and cartilage thickness increased before surface fibrillation in experimental osteoarthritis. <i>Ann Rheum Dis</i> 57:237-245 (1998)
A25	Schmid et al. Immunohistochemical distribution of a novel proteoglycan in the surface lamina of articular cartilage. <i>Proceedings of the Orthopedic Res. Soc.</i> p. 97-117 (1994)
A26	Schumacher et al. Chondrocytes of the superficial zone of bovine articular cartilage synthesize and secrete a novel proteoglycan. <i>Orthopaedic Research Society</i> , poster presentation, 40 <sup>th</sup> Annual Meeting, New Orleans, LA (Feb. 21-24, 1994)
A27	Schumacher et al. Macromolecules synthesized by articular chondrocytes of the superficial zone but not the deeper zones are also synthesized by synovium. <i>Orthopaedic Research Society</i> , poster presentation, 41 <sup>st</sup> Annual Meeting, Orlando, Florida, Feb. 13-16, 1995. <i>Trans. Orthop. Res. Soc.</i> 20:397 (1995)
A28	Schumacher et al. A novel proteoglycan synthesized by superficial-zone chondrocytes of articular cartilage. American College of Rheumatology, platform presentation. <i>Arthr. Rheum.</i> 36:S90 (1993)
A29	Schumacher et al. A novel proteoglycan synthesized and secreted by chondrocytes of the superficial zone of articular cartilage. <i>Arch. Biochem. Biophys.</i> 311(1):144-152 (1994)
A30	Schumacher et al. Immunolocalization of a novel proteoglycan synthesized by cells lining the synovia cavity. <i>Trans. Orthop. Res. Soc.</i> 23:442 (1998)
A31	Schumacher et al. Immunodetection and partial cDNA sequence of the proteoglycan, Superficial Zone Protein, synthesized by cells lining synovia joints. <i>J. Orthop. Res.</i> 17:110-120 (1999)
A32	Su et al. Use of a PPAR gamma-specific monoclonal antibody to demonstrate thiazolidinediones induce PPAR gamma receptor expression <i>in vitro</i> . <i>Hybridoma</i> 18:273-280 (1999)
A33	Su et al. Monoclonal antibodies against human collagenase and stromelysin. <i>Hybridoma</i> 14(4):383-390 (1995)
A34	Su et al. Monitoring of PPAR alpha protein expression in human tissue by the use of PPAR alpha-specific Mabs. <i>Hybridoma</i> 17:47-53 (1998)
A35	Swann et al. The lubricating activity of synovial fluid glycoproteins. <i>Arthritis and Rheum</i> 24:22-30 (1981)
A36	Towle et al. Detection of interleukin-1 in the cartilage of patients with osteoarthritis: a possible autocrine/paracrine role in pathogenesis. <i>Osteoarthritis Cartilage</i> 5:293-300 (1997)
A37	Tudor et al. Superficial Zone Proteoglycan Biosynthesis is Stimulated by Growth Factors But Inhibited by IL-1 In Chondrocytes Maintained in Agarose Cultures. 45 <sup>th</sup> Annual Meeting. <i>Orthopaedic Research Society</i> , Anaheim, CA (February 1-4, 1999)

EXAMINER:

DATE CONSIDERED:

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.